

ABSTRACT OF THE DISCLOSURE

A method of assembling a semiconductor device forming an encapsulant. The method includes providing a substrate having a plurality of semiconductor devices, respectively 5 connecting a semiconductor chip electrically to a predetermined encapsulation area on a surface of the substrate, filling an encapsulant overlying the predetermined encapsulation area using stencil printing, sweeping excess encapsulant over the predetermined 10 encapsulation area at a first air pressure below approximately 1 atm, sweeping encapsulant overlying the predetermined encapsulation area over the encapsulant overlying the predetermined encapsulation area using stencil printing at a second air pressure above the first air 15 pressure, and hardening the encapsulant at a third air pressure above approximately 1 atm.